WHAT IS CLAIMED IS:

1. A power regulator, comprising:

an upright heat sink having a top;

a case mounted on the top of the upright heat sink and having multiple holes including a fuse access hole, a wire connector access hole and two terminal holes; and

a printed circuit board (PCB) mounted in the case and mounted vertically on the top; wherein the PCB has a fuse bracket aligned with the fuse access hole, a wire connector aligned with the wire connector access hole, an input terminal and an output terminal aligned respectively with the two terminal holes and a circuit comprising a fuse mounted in the fuse bracket, a transformer and two power transistors.

2. The power regulator as claimed in claim 1, wherein a longitudinal PCB slot is defined in the top and the PCB is mounted vertically in the longitudinal PCB slot.

3. The power regulator as claimed in claim 1, wherein the case is formed with a slightly rectangular shape and has a front face, a top face and two opposite sides that have inner faces on which vertical PCB slots are respectively formed opposite to each other, wherein the PCB is mounted in the two vertical PCB slots.

4. The power regulator as claimed in claim 3, wherein a top recess is defined in the top face and communicates with the fuse access hole on the front face.

5. The power regulator as claimed in claim 3, wherein multiple heat

dissipating holes are defined in each side.

6. The power regulator as claimed in claim 1, wherein at least one indicating hole is defined in the top face and the circuit further has at least one indictor aligned with the indicating hole.

7. The power regulator as claimed in claim 1, further comprising

a threaded hole defined on the top of the heat sink, wherein the threaded hole corresponds to a gap between the two power transistors; and

a PCB clamp composed of a clamp with a through hole and a screw and placed on the two power transistors and screwed into the threaded hole in the top of the heat sink.

8. The power regulator as claimed in claim 1, further comprising two wire holes defined respectively in one of the two opposite sides and aligned with the input and output terminals.

9. The power regulator as claimed in claim 1, further comprising two wire holes defined respectively in the two opposite sides and aligned with the input and output terminals.